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## OHIO COUNTY

### (Ohio County Water Service Area Map)

- Estimated 1999 population of 22,000--90% on public water
- Estimated 2020 population of 23,400--93% on public water
- 545 miles of water lines, with plans for 130 additional miles
- Estimated funding needs for public water 2000-2005: \$17,027,000
- Estimated funding needs for public water 2006-2020: \$0

Ohio County had an estimated population of 21,972 (8,933 households) in 1999 with a projected population of 23,400 (10,200 households) in 2020. Public water is provided to over 7,600 households, or almost 90 percent of the county's residents. In areas of the county not served by public water, about 4 of 5 households rely on private domestic wells and 1 of 5 on other sources. About 345 customers will be added to public water service through new line extensions in 2000-2020.

#### *Estimated Costs - Proposed Projects, 2000-2005*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
<b>OHIO</b>								-
Ohio County Water District	106	166	6,689	3,474			3,200	13,363
Centertown	14	106	555	2,245	50		500	3,350
Fordsville	10	73	280	9				289
Hartford				25				25
<b>TOTAL</b>	<b>130</b>	<b>345</b>	<b>7,524</b>	<b>5,753</b>	<b>50</b>		<b>3,700</b>	<b>17,027</b>

### PUBLIC WATER SYSTEMS

The residents of Ohio County are presently provided water by 8 public and semi-public water systems: 7 community systems--5 municipal, Beaver Dam Municipal Water/Sewer System, Centertown Water System, Fordsville Water System, Hartford Municipal Water Works, Rockport Water Works; 1 water district, Ohio County Water District; 1 private system; and 1 non-community system.

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# WATER SERVICE AREAS

## OHIO COUNTY

### Kentucky

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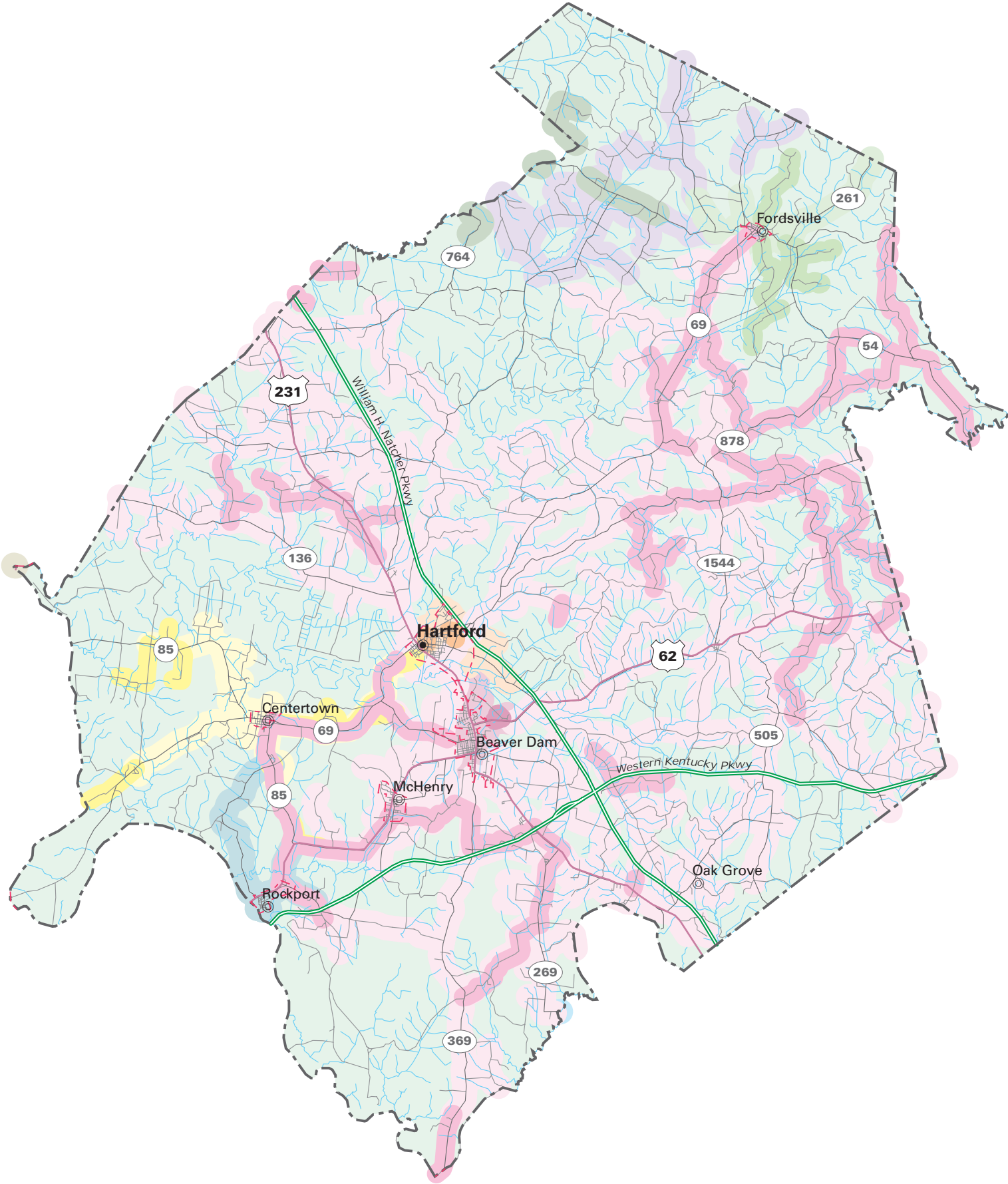
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WATER SERVICE STATUS BY OWNER		
EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		WHITESVILLE WATER WORKS
		ROCKPORT WATER WORKS
		OHIO COUNTY WATER DISTRICT
		LIVERMORE WATER WORKS
		HARTFORD MUNICIPAL WATER WORKS
		FORDSVILLE WATER DISTRICT
		EAST DAVIESS COUNTY WATER ASSOCIATION INCORPORATED
		CENTERTOWN WATER SYSTEM
		BUTLER COUNTY WATER SYSTEM INCORPORATED
		BEAVER DAM MUNICIPAL WATER AND SEWER SYSTEM

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### **BEAVER DAM MUNICIPAL WATER AND SEWER SYSTEM**

PWSID: ..... 0920025  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source:  
Purchase Source:  
Well Source: ..... Yes  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 72.00  
Total Tank Storage Capacity (gallons): ..... 0.00  
Total Service Connections: ..... 1,424.00  
Number of Employees: ..... 6.00  
Treatment Operator Class:  
Distribution Operator Class: ..... 2BD  
Customer Rate for 1,000 Gallons: ..... 3.96  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

The Beaver Dam Municipal Water/Sewer System purchases treated water from the Ohio County Water District (OCWD). The system currently services approximately 1,200 residences in the city of Beaver Dam. Beaver Dam maintains one 250,000-gallon tank and two wells for emergency use with a combined permitted withdrawal rate of 85,000-gallons per day. The Beaver Dam Municipal Water/Sewer System currently charges a residential rate of \$7.92 for the first 2,000 gallons

The Beaver Dam Municipal Water/Sewer System would like to extend a line for the benefit of a commercial entity with the project being fully funded by the commercial entity. To meet current as well as future needs of the county, proposed projects have been ranked by Beaver Dam Municipal Water/Sewer System representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region.

### **CENTERTOWN WATER SYSTEM**

PWSID: ..... 0920070  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source:  
Purchase Source: ..... HARTFORD WATER WORKS

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Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD):..... 0.00  
Percent Daily Average Production: ..... 0.00  
Total Tank Storage Capacity (gallons):..... 60,000.00  
Total Service Connections: ..... 470.00  
Number of Employees:..... 2.00  
Treatment Operator Class:.....2D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons:..... 4.69  
O/M costs 1997:..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons):..... Not available  
Water Sold 1997 (gallons):..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

The Centertown Water System purchases treated water from the Hartford Municipal Water Works. The Centertown services approximately 462 residences in the city of Centertown.

The system purchases 90,000-gallons per day from Hartford. Centertown maintains an elevated tank with a 60,000-gallon storage capacity. The calculated charge for residential water usage is \$9.38 per 2,000 gallons. The water district has 2 certified employees for operation and distribution. The other employees provide billing and financial oversight.

The Centertown Water System has several projects it would like to undertake. The district would like to upgrade all existing lines within the system containing asbestos lining. The district would also like to extend and upgrade existing lines that would allow a tie onto OCWD to eliminate the need to pump 14 hours per day. In addition, the district would like to install a 125,000-gallon tank. To meet current as well as future needs of the county, projects have been ranked by Centertown Water System representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region.

#### **FORDSVILLE WATER DISTRICT**

PWSID: ..... 0920136  
System Type:..... COMMUNITY  
Owner Type: ..... WATER DISTRICT  
Surface Source:..... FORDSVILLE CITY LAKE  
Purchase Source: ..... OHIO COUNTY WATER DISTRICT  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD):..... 0.12  
Percent Daily Average Production: ..... 58.00

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Total Tank Storage Capacity (gallons):.....	600,000.00
Total Service Connections: .....	377.00
Number of Employees:.....	3.00
Treatment Operator Class:.....	1D
Distribution Operator Class: .....	2A
Customer Rate for 1,000 Gallons:.....	6.00
O/M costs 1997:.....	Not available
O/M costs per Service Connection: .....	Not available
Net Revenue 1997: .....	Not available
Total Water Produced 1997 (gallons):.....	Not available
Water Sold 1997 (gallons):.....	Not available
Unaccounted-for Water 1997 (%): .....	Not available

The Fordsville Water System currently draws water from Fordsville City Lake and has the ability to draw from the Ohio County Water District in an emergency or drought. The system currently services 330 residential customers in the city of Fordsville. Fordsville Water System operates a treatment plant with a design capacity of 122,000-gallons per day. The district maintains two storage tanks with a combined storage capacity of 600,000-gallons. On an average day the system produces approximately 100,000-gallons per day. The calculated charge for residential water usage is \$12.00 per 2,000 gallons. The water district has 3 certified employees for operation and distribution. The other employees provide billing and financial oversight.

The Fordsville Water System would like to like to complete several projects involving extending its existing lines. To meet current as well as future needs of the county, projects have been ranked by the Fordsville Water System representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region

#### **HARTFORD MUNICIPAL WATER WORKS**

PWSID:.....	0920181
System Type:.....	COMMUNITY
Owner Type: .....	MUNICIPAL
Surface Source:.....	ROUGH RIVER
Purchase Source:	
Well Source:	
Sells Water to: .....	CENTERTOWN WATER SYSTEM
Treatment Plant Capacity (MGD):.....	1.00
Percent Daily Average Production: .....	42.00
Total Tank Storage Capacity (gallons):.....	1,750,000.00
Total Service Connections: .....	1,048.00
Number of Employees:.....	4.00
Treatment Operator Class:.....	2D

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Distribution Operator Class: .....	3A
Customer Rate for 1,000 Gallons:.....	4.86
O/M costs 1997:.....	Not available
O/M costs per Service Connection:.....	Not available
Net Revenue 1997:.....	Not available
Total Water Produced 1997 (gallons):.....	Not available
Water Sold 1997 (gallons):.....	Not available
Unaccounted-for Water 1997 (%): .....	Not available

The Hartford Municipal Water Works currently draws water from Rough River. The system currently services 973 residential customers in the city of Hartford. Hartford Municipal Water Works operates a treatment plant with a design capacity of 1,000,000-gallons per day. The district maintains two storage tanks with a combined storage capacity of 1,175,000-gallons. On an average day the system produces approximately 500,000-gallons per day. The calculated charge for residential water usage is \$9.71 per 2,000 gallons. The water district has 4 certified employees for operation and distribution. The other employees provide billing and financial oversight.

The Hartford Municipal Water Works has four projects in its plans for the future. Projects include the upgrade existing lines to increase pressure and water volume for existing customers and the extension of existing lines to new customers. The water district would also like to extend lines to provide service for growth and development. To meet current as well as future needs of the county, projects have been ranked by Hartford Municipal Water Works system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region.

#### **ROCKPORT WATER WORKS**

PWSID:.....	0920373
System Type:.....	COMMUNITY
Owner Type:.....	MUNICIPAL
Surface Source:.....	GREEN RIVER
Purchase Source:	
Well Source:	
Sells Water to:	
Treatment Plant Capacity (MGD):.....	0.00
Percent Daily Average Production: .....	27.00
Total Tank Storage Capacity (gallons):.....	55,000.00
Total Service Connections: .....	246.00
Number of Employees:.....	4.00
Treatment Operator Class:.....	1D

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Distribution Operator Class: .....	2A
Customer Rate for 1,000 Gallons:.....	6.50
O/M costs 1997:.....	Not available
O/M costs per Service Connection:.....	Not available
Net Revenue 1997:.....	Not available
Total Water Produced 1997 (gallons):.....	Not available
Water Sold 1997 (gallons):.....	Not available
Unaccounted-for Water 1997 (%): .....	Not available

The Rockport Water Works draws its water from the Green River. The district currently services approximately 238 residences in the city of Rockport. The system produces 75,000-gallons per day. The water district currently maintains a storage tank with a 55,000-gallon storage capacity. The calculated charge for residential water usage is \$13.00 per 2,000 gallons. The water district has 4 certified employees for operation and distribution. The other employees provide billing and financial oversight.

The Rockport Water Works is currently upgrading its water system. The entire distribution system is being replaced and a new 75,000-gallon storage tank is in construction. The city plans to close its water plant within the next five years and begin purchasing water from the Ohio County Water District.

#### **OHIO COUNTY WATER DISTRICT**

PWSID: .....	0920332
System Type:.....	COMMUNITY
Owner Type: .....	WATER DISTRICT
Surface Source:.....	GREEN RIVER
Purchase Source: .....	NORTH MCLEAN COUNTY WATER DISTRICT
Well Source:	
Sells Water to: .....	FORDSVILLE WATER DISTRICT
Treatment Plant Capacity (MGD):.....	2.08
Percent Daily Average Production: .....	73.00
Total Tank Storage Capacity (gallons):.....	250,000.00
Total Service Connections: .....	4,552.00
Number of Employees:.....	10.00
Treatment Operator Class:.....	2D
Distribution Operator Class: .....	3A
Customer Rate for 1,000 Gallons:.....	4.87
O/M costs 1997:.....	1,157,651.00
O/M costs per Service Connection: .....	251.06
Net Revenue 1997: .....	104,364.00
Total Water Produced 1997 (gallons):.....	604,882,000.00
Water Sold 1997 (gallons):.....	409,438,100.00
Unaccounted-for Water 1997 (%): .....	20.66

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The Ohio County Water District currently draws water from the Green River and has the ability to obtain water from Butler County and North McLean County Water District on an emergency basis. The district sells water to the Beaver Dam Municipal Water/Sewer System and the Fordsville Water System. The system currently services 4,418 residential customers in the areas of Ohio County not served by other districts. OCWD operates a treatment plant with a design capacity of 2,080,000-gallons per day. On an average day the system produces approximately 1,535,000 gallons per day. The water district has 6 certified employees for operation and distribution. The other employees provide billing and financial oversight.

The Ohio County Water District has several projects it would like to undertake. The water district would like to complete several connections of existing lines to improve system pressure and the water flow volume. The district also proposes to complete several extension projects. To meet current as well as future needs of the county, projects have been ranked by the Ohio County Water District system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region.

## **OTHER SYSTEMS**

### **PERDUE FARMS INC**

Perdue Farms Inc is located in Ohio County. The system serves a population of 400 and has 1 service connection. The private, community system has treatment capacity of 3,000,000 gallons per day. The water source is surface water from Green River.

### **WESTERN KENTUCKY ENERGY CORPORATION/DB WILSON**

Western Kentucky Energy Corp/Db Wilson is located in Ohio County. The system serves a population of 176 and has 1 service connection. The private, non-transient, non-community system has treatment capacity of 28,800 gallons per day. The water source is surface water from Green River.

## **PRIVATE DOMESTIC SYSTEMS**

About 2,150 people in Ohio County rely on private domestic water supplies: 1,750 on wells and 400 on other sources.

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In the southern and western two-thirds of Ohio County most wells from depths of less than 300 feet are adequate for a domestic supply. Wells located in the Green River flood plain can produce as much as 100 gallons of hard water per minute. Most wells obtain their water from thick sandstone layers and will yield as much as 60 gpm. In the north-eastern third of the county only a few well yield enough water for a domestic supply except in the valley of the Rough River where most wells yield enough for a domestic supply. In a thin highly faulted zone running east west across the county between the towns of Beda and Dundee, yields to drilled wells are unpredictable due to the faulting. In the southern part of the county moderately mineralized water may be obtained locally from deep sandstone formations at depths of 1200 feet.

Generally, ground water is hard to very hard and iron and salt may be present in objectionable amounts. Often ground water becomes saltier with depth.

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